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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/366,963	08/04/1999	CHRIS HEEGARD		3713

7590 07/10/2003
BARRY R LIPSITZ
755 MAIN STREET
BUILDING NO 8
MONROE, CT 06468

EXAMINER

ABRAHAM, ESAW T

ART UNIT PAPER NUMBER

2133

DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/366,963

Applicant(s)

HEEGARD ET AL.

Examiner

Esaw T Abraham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-9, 13, 14 and 18 is/are rejected.
- 7) ☒ Claim(s) 4-6, 10-12, 15-17, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Final rejection

DETAILED ACTION

1. Claims 1 to 20 are presented for examination.

*****The response in the office action (the previous rejection) in paper 3 stands active or alive.

Response to the applicant's argument

2. Applicants argument's with respect to amended claims 1-20 filled in July 30, 2003 have been fully considered but they are not persuasive.

Remarks to pages 1-4, the applicant argues (in claims 1 and 18) that convolutionally encoding data using one of a two distinct code generator metrices to provide convolutional coded code words and in the claim the claims read as "one of a 64-state, rate $\frac{1}{2}$ binary convolutional code (BCC) based on octal generators or a 256-state, rate $\frac{2}{3}$ BCC based on octal generators". However, the claimed limitation is meet in view of Paik et al.'s figure 2, element 48 and further, Paik et al. clearly teach that data are clearly processed by the convolutional 64-state encoder with a rate of $\frac{1}{2}$ binary convolutional encoding algorithm to provide a two bit codeword that defines one of four subsets of an N-bit QAM constellation pattern (see col. 4, lines 50-56). Therefore, the application of the prior art in relation to the claimed invention is appropriate.

The applicant (in claims 2, 3, and 14) argues that the prior art (Oshima et al.) teach an error correction code data communication system that scrambles and de-scrambles both non-coded data and coded data and Paik et al. teach a concatenated code scheme that uses both coded and un-coded bits and thus applicants contend that presuming, arguendo, that one skilled in the art would be motivated to combine the teachings of Paik et al. However, both prior arts are

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analogous and using convolutional encoders dealing with error correction codes and Oshima et al. (second reference) teach a method of scrambling by a scrambler provided with an error correction code by a convolutional encoder to support or implement the teachings of Paik et al. to perform scrambling operations. Therefore, the applied references have been applied appropriately.

The applicant (in claims 7-9 and 13) argues that the prior art (Oshima et al.) does not teach or suggest the claimed invention in that Oshima et al. teaches processing of both coded and un-coded bits. The argument, however, is not convincing since figure 3 teaches an apparatus for encoding data in a data communication system comprising in a transmitter comprising a scrambler (1a) and a convolutional encoder for scrambling code words (see col. 3, lines 27-67). In light of figure 3 and the above explanation the argument is moot.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

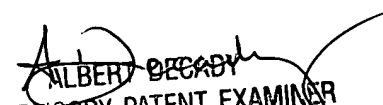
Any inquiry concerning this communication or earlier communication from the examiner should be directed to Esaw Abraham whose telephone number is (703) 305-7743. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are successful, the examiner's supervisor, Albert DeCady can be reached on (703) 305-9595. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for after final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


Esaw Abraham

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ALBERT DECADY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100